STATEMENT OF

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BEFORE THE

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COMMITTEE ON GOVERNMENT REFORM

U.S. HOUSE OF REPRESENTATIVES

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Mr. Chairman, I appreciate this opportunity to testify today on the Energy Information Administration's (EIA) insights into factors affecting recent gasoline prices.

EIA is the statutorily chartered statistical and analytical agency within the U.S. Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Department of Energy, other Government agencies, the U.S. Congress, and the public. We produce data and analysis reports that are meant to assist policy makers in determining energy policy. Because we have an element of statutory independence with respect to the analyses that we publish, our views are strictly those of EIA. We do not speak for the Department or for any particular point of view with respect to energy policy, and our views should not be construed as representing those of the Department or the Administration. EIA's baseline projections on energy trends are widely used by Government agencies, the private sector, and academia for their own energy analyses.

Gasoline prices have risen sharply since the beginning of this year throughout the United States (**Figure 1**). As of May 2, the national average retail price for regular gasoline was $2.24 per gallon, 39 cents higher than a year ago, and up nearly 46 cents since the beginning of the year. While relatively high in historical terms, the current national average price has dropped more than 4 cents below the level reached on April 11, which was the highest national average price ever recorded, in nominal terms.

Adjusting for inflation, however, U.S. gasoline prices were significantly higher in 1981, with the March 1981 price equating to $3.10 per gallon in today's dollars.

While gasoline prices, and oil prices in general, are currently high throughout the United States and even worldwide, California has been hit particularly hard. California prices are typically higher than the U.S. average, and thus the run-up this year began from a higher level. In addition, California retail prices often exhibit more volatility than other areas when markets tighten. This year is no exception, as the average retail price in California has risen about 58 cents since the beginning of this year, and stands at $2.56 per gallon, almost 33 cents higher than the national average. As was the case for the U.S. average, California gasoline prices reached an all-time high (again, not adjusted for inflation) on April 11, at $2.59 per gallon.

The remainder of my statement indicates that gasoline prices reflect changes in petroleum markets seen since 2000. Current gasoline prices in California and the United States are primarily the result of unusual tightening in world crude oil markets, which was particularly acute in 2004. This tightness was brought about by accelerating demand increases, which stretched worldwide crude oil production capacity nearly to its limits. As a result, crude oil prices almost doubled in 2004, and that lack of spare capacity is expected to keep crude oil markets tight and prices high at least through 2006. Adding to price pressures were exacerbating factors such as changing world petroleum product specifications and declining excess refining capacity, which reduce supply flexibility and

diminish the ability of the world, as well as the United States, to rebalance product markets quickly as unexpected demand swings occur.

Background

Retail gasoline prices are a function of many influences. Thus, in order to assess the causes of price changes, it is necessary to break down retail prices into their various components: crude oil prices, refining costs and profits, distribution/marketing costs and profits, and taxes.

Comparing U.S. retail gasoline prices in April 2005 with those of a year earlier, the average price rose by 44 cents per gallon, and each of the components listed above increased (**Figure 2**). The U.S. composite refiner acquisition cost of crude oil grew from $33.46 per barrel (equivalent to 80 cents per gallon) in April 2004 to an estimated $46.70 per barrel ($1.11 per gallon) in April 2005, accounting for 32 cents per gallon of the increase in gasoline prices. The average spot gasoline price rose by 39 cents per gallon, or 7 cents more than the increase in crude oil prices, reflecting a gain in the spread between the two, which represents refining costs and profits. Finally, the average retail gasoline price, excluding taxes, increased by 44 cents per gallon, or 5 cents more than the increase in spot prices, reflecting a rise in that spread, which represents distribution and marketing costs and profits. Taxes usually change very little, but they did increase slightly (less than one cent) over this time period, since some States and localities charge taxes based on a percentage of price.

To elaborate on the previous paragraph, crude oil price variations often account for most of the change in the price of gasoline, which again was the case between April 2004 and April 2005 (a 32-cent-per-gallon increase). The second major component contributing to price variation is the spread between spot gasoline prices and crude oil prices, which rose 7 cents per gallon. Gasoline is sold into spot markets by both refiners and importers, and spot prices reflect the overall supply/demand balance for gasoline in the United States and regionally. As such, any change in gasoline supply availability or demand levels will influence this spread, and thus the short-run profitability of refining or importing gasoline. These changes, in turn, spur refiners and importers to increase or decrease supply, and thus are, to some extent, self-adjusting. The spot price spread tends to be very seasonal, rising in the spring and summer due to higher demand. In the longer term, changes in the costs of refining and blending gasoline, including the impact of government regulations on the refining industry, will also be reflected in this spread.

The retail-to-spot price differential, at least in the short term, is primarily a function of the lag involved in passing price changes through from wholesale to retail markets, both upward and downward. Because of this lag, as prices are rising, the retail-to-spot spread is compressed, while as prices are falling, it temporarily expands, in either case only until retail price changes catch up to changes in the underlying wholesale markets. In the longer term, this differential can also reflect changes in the underlying cost structure and/or competitive landscape of the petroleum marketing and distribution sectors.

Finally, insofar as taxes are concerned, there is usually relatively little change in the short term in excise tax rates, which are typically denominated in cents per gallon, but a number of States (including California) and local jurisdictions charge additional sales or other taxes denominated as a percentage of the sales price.

Crude Oil Prices

In 2004, crude oil prices almost doubled from 2003, rising from about $30 per barrel for spot West Texas Intermediate (WTI) at the end of 2003 to a peak of $56.37 on October 26, 2004. Although prices fell back through the end of the year, they rebounded again in 2005 to peak at $57.26 on April 1. They have since fallen to around $50, but are expected to range from the low- to mid-$50s level for much of the remainder of the year.

Prices since the end of 2003 represent the second major shift in the marketplace since the 1990s, when prices averaged close to $20 per barrel (**Figure 3**). The first shift occurred in the late 1990s. In late 1998, crude oil prices plunged to almost $10 per barrel as a result of the Asian financial crisis slowing demand growth just when extra supply from Iraq was entering the market for the first time since the 1990-1991 Gulf War. The Organization of Petroleum Exporting Countries (OPEC) reacted to the low prices and the associated economic impacts by sharply reversing prior production increases, which eventually not only restored the $20 level, but pushed prices to what seemed to be a new level of about $30 per barrel, as demand grew in the face of OPEC production discipline and declining global inventories.

Prices in 2004 appear to have shifted to a second higher level, well above $40 per barrel. Several factors underlie the tightening world supply/demand balance driving this second increase. The key factor probably was world petroleum demand growth, which rose in 2004 much more than anticipated by most analysts. China was probably the biggest surprise, as its demand grew by 1 million barrels per day from 2003, compared to a 0.4 million-barrel-per-day increase between 2002 and 2003. China and the United States combined accounted for almost 60 percent of the increase in demand in 2004, and all indications are that growth will remain strong in 2005.

On the supply side, growth in non-OPEC production fell well short of meeting increasing world needs in 2004 and is expected to continue to fall short for the next several years. The largest source of non-OPEC production growth is expected to be Russia and the Caspian Sea region, which are anticipated to contribute more than 80 percent of the non-OPEC increase in supply in 2005 (0.5 million of the 0.6-million-barrel-per-day increase). Africa, Brazil, and Ecuador are other major non-OPEC areas where production increases are expected. However, there are no new large areas on the horizon that would add 1 to 2 million barrels per day of supply, as the North Sea or the Alaskan North Slope did in the 1970s and 1980s. Therefore, to meet expected strong demand growth, OPEC production and capacity must increase significantly.

As 2004 unfolded, market participants initially focused on inventories, which measure the balance between supply and demand, looking for signs of changing market conditions and resulting price pressures. World petroleum inventories were low for the

first half of 2004, indicating a tight market, but they were not lower than levels seen in 2000 or 2003. Furthermore, 2004 inventories recovered towards year-end before falling sharply again. Yet, prices rose higher in 2004 than in either of those prior years. What was different?

Before answering that question, a couple of qualifications may be worth noting. First, inventories in areas outside of the Organization for Economic Cooperation and Development (OECD) are not well known. Since China is not a member of the OECD, it is possible that some of the market pressure seen in 2004 was not reflected adequately in OECD inventories. Also, while inventories in absolute terms moved to seemingly comfortable levels in 2004, inventories were not high when adjusted for strong demand growth. That is, on a forward cover basis (i.e., the number of days of expected consumption covered by inventories), stocks remained at very low levels throughout most of 2004 (**Figure 4**). While OECD inventories were in the middle of the average range at the beginning of 2005, in terms of forward cover, inventories were near the lows seen in 2000, at just 50 days. While OECD stock levels are expected to stay within the average range throughout 2005, forward cover is expected to drop back to 50 days by the end of the year.

On the supply side, perhaps the most important change in 2004 from recent years was the drop in the world's ability to surge crude oil production, either to fill in for unanticipated loss of supply (e.g., Venezuela or Iraq) or simply to meet unexpected demand strength. **Figure 5** shows an estimate of surplus crude oil production capacity in

OPEC. Since OPEC is generally the only area that maintains short-term surplus production capacity, it effectively represents world spare capacity. At this point, EIA estimates that OPEC has about 1.1 to1.6 million barrels per day of extra production capacity, primarily in one country, Saudi Arabia. At these levels, spare capacity is as tight as at any point since the first Gulf War. As occurred last fall, spare capacity may drop further as global oil demand rises seasonally to peak during the second half of 2005.

In EIA's view, it is the lack of both supply cushions – inventories and spare capacity – in the face of strong demand growth that explains most, if not all, of the price pressure currently evident in oil markets.

In summary, the tight petroleum markets in 2004 and 2005 and associated crude oil price increases differ from those experienced over the past 20 years in that the factors driving recent changes are not short-term in nature. Neither strong demand growth rates nor relatively small crude production capacity increases are likely to shift enough to relieve current price pressures in the near term.

Gasoline Prices, Focusing on California

As indicated previously, crude oil price increases explain much of the rise in gasoline prices seen in 2004 and 2005. Crude oil and petroleum product markets generally move together (**Figure 6**). With average crude oil prices rising by $13.24 per barrel (32 cents per gallon) since last April, gasoline prices followed for the most part. Spot gasoline price spreads over crude oil were high in 2004, reflecting the tight product

and crude oil market situation. However, from January through April, the U.S. spot spreads over crude oil have averaged about 4 cents per gallon less in 2005 than in 2004. This is at least partially due to a weaker gasoline balance in 2005, as reflected in higher gasoline inventories.

California has historically seen some of the highest, and most volatile, gasoline prices in the United States (**Figure 7**). The reasons for the striking differences in the behavior of California gasoline prices, as compared to those in other parts of the United States, are numerous. Several major factors contribute to the problem:

- While the California refinery system supplies most of region's needs, the refinery system runs near its capacity limits, which means there is little excess capability in the region to respond to unexpected shortfalls;
- California is isolated from and lies a great distance from other supply sources (e.g., 14 days' travel by tanker from the Gulf Coast), which prevents a rapid resolution to any supply/demand imbalances;
- The region uses a unique gasoline that is difficult and expensive to make, and as a result, the number of other suppliers who can provide product to the State are limited.

As a result of these factors, refinery outages on the West Coast at times can cause prices to surge. In both California and other U.S. regions, outages typically occur during the first quarter as refiners undergo maintenance prior to the peak summer demand period, and 2005 is no exception. California refinery outages to date in 2005 have not

appeared unusual, and gasoline production through April this year has remained adequate to meet demand without creating unusual gasoline price surges.

California's ban on methyl tertiary butyl ether (MTBE) beginning in 2004 (many refiners phased out MTBE in 2003) added to the State's already tight gasoline balance, as refiners lost production capability when replacing MTBE with ethanol. This, along with continued demand growth, has contributed to price pressures. From 2000 through 2002, California retail gasoline prices averaged about 19 cents per gallon more than the U.S. average gasoline price, but in 2003 as MTBE began to be removed, California prices averaged 27 cents per gallon higher than the U.S. average, and remained at that level through 2004. In 2005, the California gasoline market, apart from crude oil, while tight, seems to be slightly less so than in 2004. From January through May 2, California retail prices have been about 4 cents per gallon closer to U.S. average gasoline prices than they were in 2004.

Forecast

As we look ahead at the remainder of this year and next, EIA expects crude oil prices to remain above $50 per barrel. World demand, while likely growing less than in 2004, is expected to continue relatively strong growth. Projections for 2005 and 2006 call for worldwide growth averaging 2.2 million barrels per day, or 2.6 percent, per year, down from the 3.4 percent growth in 2004. With little excess crude oil production capacity, this growth will be met mainly by expanded capacity in Russia, the Caspian Sea

region, and Saudi Arabia, but the balance between supply and demand is expected to remain tight, leaving little room for error.

The tight crude oil market also increases the likelihood of continued crude oil price volatility. For example, crude oil prices could ease somewhat over the next few months as world demand relaxes seasonally and refinery maintenance in other parts of the world eases the pull on crude oil supplies. However, as the world's high demand season gets underway in the run-up to winter, crude prices may rise again, possibly to the mid-$50's per barrel, as seen earlier this year. High refinery utilizations and non-fungible product specifications reduce supply response flexibility and thus add to the potential for volatility.

At this point, little is certain. Gasoline markets could turn in either direction. If crude oil prices do not increase further, the United States may have already seen or may lie near its high point for summer gasoline prices. Even so, a second peak towards the end of the driving season is possible if summer demand surges as it did in 2003, even without further increases in the price of crude oil. California's tight market is even more subject to short-term swings in price through the summer months than elsewhere in the United States. In addition, crude oil markets could tighten again as we near the fourth quarter with world demand rising seasonally. If this occurs, crude prices could also contribute to a late summer or early fall increase in gasoline prices.

In summary, for the next several years, consumers can expect gasoline prices in the range of those seen recently. EIA's Summer Outlook, issued April 7th, projects U.S. gasoline prices in 2005 to average $2.28 per gallon for the April to September summer season, 38 cents above last summer. Similar high motor gasoline prices are expected through 2006. Monthly average prices are projected to peak at about $2.35 per gallon in May or June. As in 2004, the primary factor behind these price increases is high crude oil costs. WTI crude oil, for example, is projected to average 37 cents per gallon higher than last summer. High world oil demand will continue to support crude oil prices and increase competition for gasoline imports. In the United States, additional changes in gasoline specifications and tight refinery capacity can be expected to increase operating costs slightly and limit supply flexibility, adding further pressure to pump prices. U.S. motor gasoline demand is projected to reach an average of 9.3 million barrels per day this summer, up 1.8 percent from last summer. Despite high prices, demand is expected to continue to rise due to the increasing number of drivers and vehicles and increasing per-capita vehicle miles traveled.

This concludes my testimony, Mr. Chairman. I would be glad to answer any questions you and the other Members may have.

Figure 1

Gasoline Prices Rose Sharply Throughout

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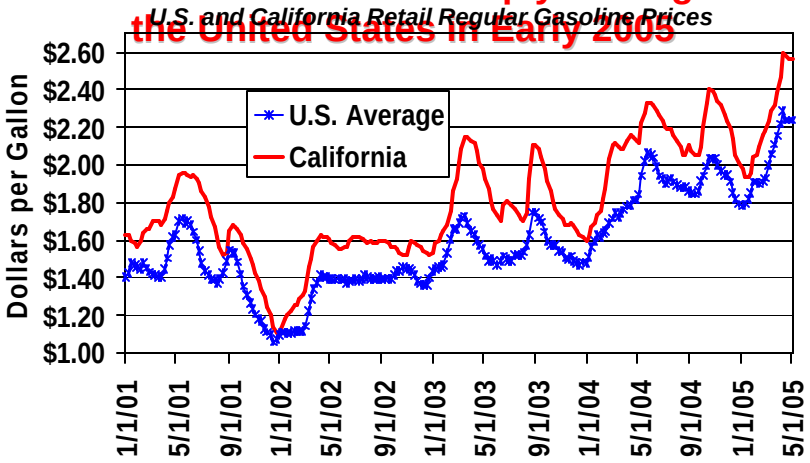
U.S. and California Retail Regular Gasoline Prices



Source: EIA Weekly Gasoline Survey

Figure 2

Crude Oil Cost Made Largest Contribution to

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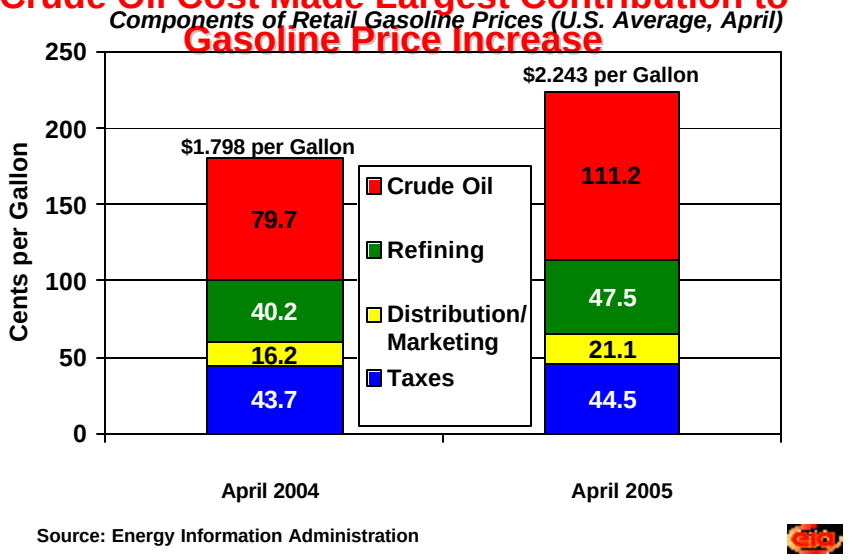
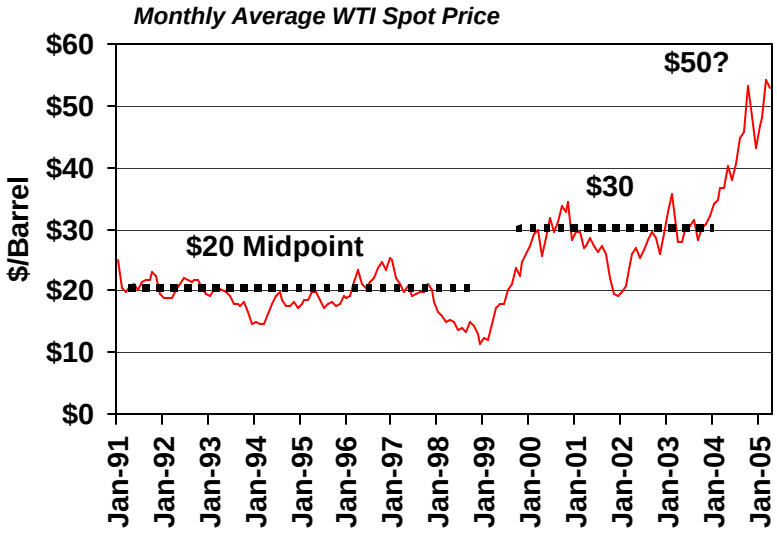
Gasoline Price Increase



Source: Energy Information Administration

Figure 3

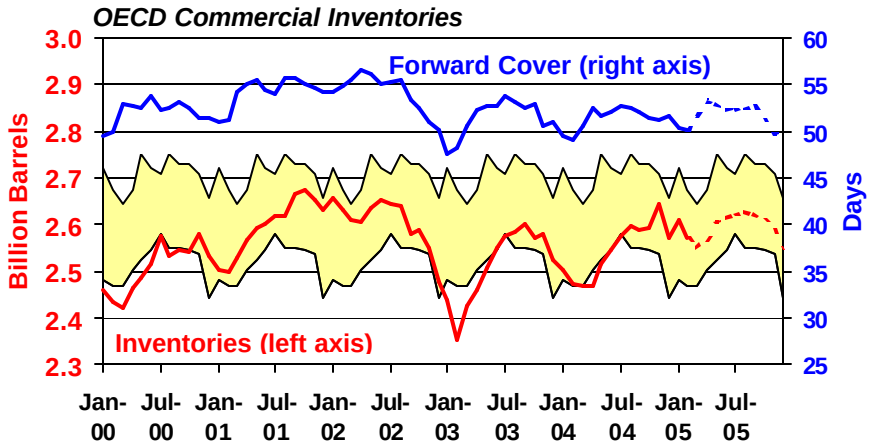
Shifts in Crude Oil Price



Source: Bloomberg West Texas Intermediate Crude Cushing spot price

Figure 4

Inventories in Normal Range But Forward Cover Low

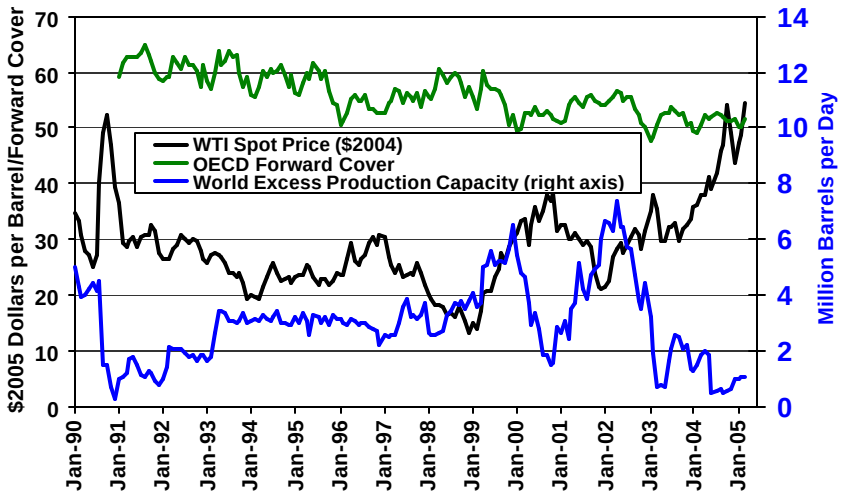


NOTE: Colored Band is Normal Stock Range (5 Year Average +/- 1 standard deviation)

Source: Energy Information Administration

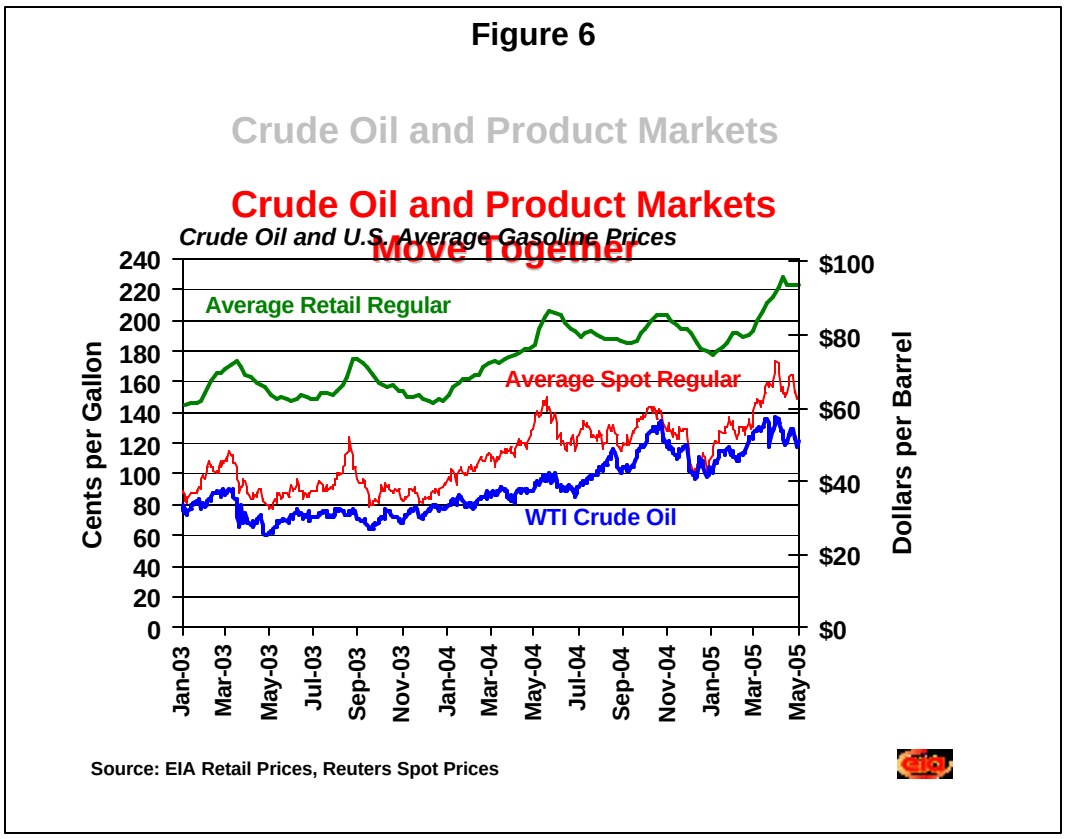
Figure 5

Lack of Excess Capacity and Low Forward Cover Thrust Prices Upward



Sources: WTI: Reuters; OECD Forward Cover: International Energy Agency; World Excess Production Capacity: U.S. Energy Information Administration estimates.

Figure 6


Crude Oil and Product Markets
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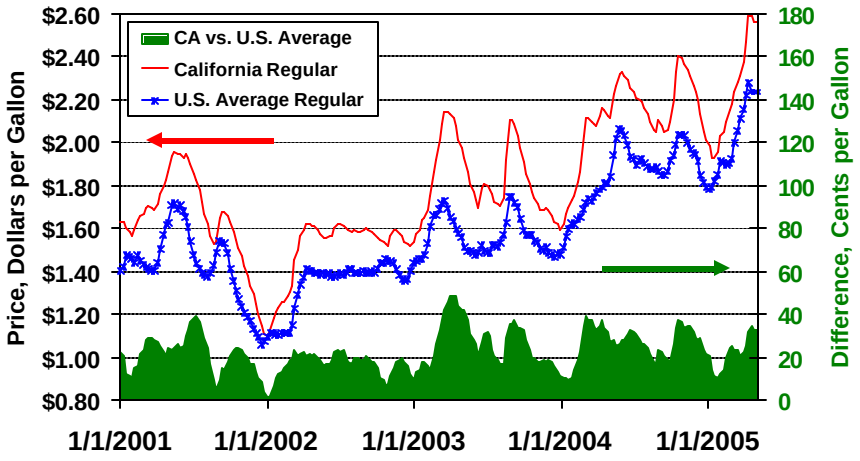
Crude Oil and U.S. Average Gasoline Prices
Move Together
Average Retail Regular
Average Spot Regular
WTI Crude Oil
Cents per Gallon
Dollars per Barrel
240
220
200
180
160
140
120
100
80
60
40
20
0
$100
$80
$60
$40
$20
$0
Jan-03
Mar-03
May-03
Jul-03
Sep-03
Nov-03
Jan-04
Mar-04
May-04
Jul-04
Sep-04
Nov-04
Jan-05
Mar-05
May-05
Source: EIA Retail Prices, Reuters Spot Prices

Figure 7

California Prices Moved Slightly Closer to U.S. Average in 2005

U.S. and California Retail Gasoline Price Comparison



Source: Energy Information Administration